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Report on Oil and Gas Tax and Royalty Collections  
And Other Aspects of Oil and Gas Regulation in Montana

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May 1978

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STATE OF MONTANA

Office of the Legislative Auditor



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JOHN W. NORTHEY

The Legislative Audit Committee  
of the Montana State Legislature:

Herein transmitted is our program/performance audit of oil and gas tax and royalty collections and other aspects of oil and gas in Montana.

The purpose and scope of this audit are explained in Chapter I (page 1) of the report.

This report contains major recommendations for changes of various aspects of oil and gas regulation in Montana.

We wish to express our appreciation to the commissioners/directors and staff of the Department of State Lands, the Department of Revenue, and the Department of Natural Resources and Conservation; plus the Board of Oil and Gas Conservation and its staff for their cooperation and assistance.

Respectfully submitted,

A handwritten signature in black ink that appears to read "Morris L. Brusett".

Morris L. Brusett, C.P.A.  
Legislative Auditor



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APPOINTIVE AND ADMINISTRATIVE OFFICIALS

BOARD OF OIL AND GAS CONSERVATION

		<u>Term Expires</u>
R. A. Campbell, Chairman	Billings	January 1, 1979
C. J. Iverson, Vice-Chairman	Whitlash	January 5, 1981
Milton G. Anderson	Sidney	January 5, 1981
Paul C. Bunn	Chester	January 1, 1979
John P. Moore	Cut Bank	January 5, 1981

DEPARTMENT OF STATE LANDS

Leo Berry, Jr., Commissioner

DEPARTMENT OF REVENUE

Raymon Dore, Director

DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION

Ted Doney, Director

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OFFICE OF THE LEGISLATIVE AUDITOR

REPORT ON OIL AND GAS TAX AND ROYALTY COLLECTIONS  
AND OTHER ASPECTS OF OIL AND GAS REGULATION IN MONTANA

SUMMARY

This program audit report addresses the concept of a centralized tax and royalty collection system, the accuracy of production and tax reporting, the waste of natural gas associated with oil production, and the potential removal of oil and gas from state leases without payment.

CHAPTER I. INTRODUCTION

This Chapter (page 1) explains the organization of the report and introduces the issues discussed in the report. The objectives and scope of the audit are also discussed.

CHAPTER II. BACKGROUND

This Chapter (page 4) discusses the origins of the oil industry in Montana and presents historical data on the amounts of oil and gas produced in the state. In addition, the role of three state agencies involved with oil and gas in Montana is discussed.

CHAPTER III. CONSOLIDATIONS OF OIL AND GAS COLLECTION PROCESSES

This Chapter (page 7) discusses the possibility of consolidating the collection of the various state oil and gas taxes, and royalties from the Department of State Land's leases. As background to this discussion, the laws regarding these taxes, royalties and rents are presented.

We found two reasons for consolidating the collection of three of the taxes--the privilege and license tax, the oil and gas producers severance tax, and the resource indemnity trust tax. These reasons are (1) all oil and gas tax returns will then be audited and (2) paperwork would be reduced for the industry and the state. To implement this consolidation, the confidentiality feature of the Resource Indemnity Trust Tax must be deleted. Also the Resource Indemnity Trust Tax would have to be reported quarterly like the other two taxes instead of annually. In addition we concluded that the value of all taxes and royalties should be determined when they are sold rather than when produced.

RECOMMENDATION (page 14)

1. *Legislation be enacted to enable collection of the oil and gas severance tax, the privilege and license tax, and Resource Indemnity Trust Tax by the Department of Revenue on a quarterly basis on a consolidated return.*
2. *Legislation be enacted to address the confidentiality of the respective tax information.*
3. *Legislation be enacted to amend Sections 81-1704, 84-2202(1), 84-7006, and 60-145(1), R.C.M. 1947, to require payment of taxes or royalties based on the value of the oil and gas when sold rather than when produced.*

We do not recommend that royalties from Department of State Land's leases be consolidated with the three taxes, but we do see an advantage in formal exchange of information between the Department of Revenue and the Department of State Lands.

The Department of Natural Resources and Conservation concurs with the above recommendations as does the Department of Revenue except the latter anticipates difficulties changing the Resource Indemnity Trust Tax to a quarterly basis (page 43 and 47). The Department of State Lands made no comment (page 45). The Board of Oil and Gas Conservation agrees with these recommendations as long as the Department of Revenue does not charge a fee for collecting the tax and their funds are deposited in an earmarked revenue account (page 48).

RECOMMENDATION (page 16)

*We recommend that the Department of Revenue:*

1. *Establish formal procedures for reporting any audit discrepancies found concerning state leases to the Department of State Lands.*
2. *Include in its audit plan a step to check the Department of State Lands royalty reports for any possible discrepancy in reported production between the two departments.*

We found no significant differences in prices, production and total value reported to the Department of State Lands, the Department of Revenue, and the Board of Oil and Gas Conservation by oil and gas operators.

The Department of Natural Resources and Conservation made no comment on these recommendations since they were not affected (page 43) and neither did the Department of State Lands (page 45). The Department of Revenue and the Board of Oil and Gas Conservation agrees with these recommendations (pages 47 and 48).

This Chapter (page 18) discusses the possibility of reducing the waste of gas associated with oil production. In making our evaluation of preventing the waste of this gas we concentrated on recent changes in the technology of transporting associated gas and the profitability of marketing this gas. We found that there are instances where associated gas is presently being wasted unnecessarily and that the Board of Oil and Gas Conservation is not seeking out these situations. We also discovered that other states generally take a more active approach than Montana in preventing the waste of associated gas.

RECOMMENDATION (page 32)

*We recommend that the Board of Oil and Gas Conservation:*

- 1. Revise the production report form to indicate the volume of flared or vented gas and provide for periodic testing of its accuracy by field personnel.*
- 2. Require operators to submit economic justification depicting that recovery of associated gas is/is not feasible.*
- 3. Authorize flaring where recovery is not feasible.*
- 4. Suspend or curtail the operation of wells which flare without authorization.*

The Board of Oil and Gas Conservation has implemented or is in the process of implementing the above recommendations with one exception. They do not agree with having their field personnel periodically testing wells to check the accuracy of reported gas volume (page 48). The Department of Natural Resources and Conservation concurred with these

recommendations but deferred comments to the Board of Oil and Gas Conservation (page 43). The Departments of State Lands and Revenue made no comments (pages 48 and 45).

CHAPTER V. DRAINAGE AND UNIT AGREEMENTS--CONTROLLING REMOVAL  
OF STATE OIL AND GAS RESOURCES

This Chapter (page 33) discusses the possibility of oil and gas being drained from Department of State Land's leases from wells on adjoining properties. We also discussed the possibility of the Department of State Lands not receiving a fair participation rate when they enter into agreements (unit agreements) with other lease holders in a oil field. We concluded that oil and gas is possibly being drained from state leases and that participation rates for unit agreements may not be in the states interest.

RECOMMENDATION (page 41)

*We recommend that the Department of State Lands:*

1. *Maintain current files on all unit agreements which concern oil and gas leases of state lands.*
2. *Revise the state lease form to provide for a compensatory unit agreement in addition to offset drilling.*
3. *Obtain the necessary expertise and assistance for monitoring oil and gas drilling activity within the state and for evaluating unit agreements to permit protection of royalties due from state leases on both primary and secondary recovery projects.*

4. Enforce the provisions of the lease with respect to offset drilling or compensatory unit agreements.

We recommend that legislation be enacted to amend Section 81-1702.2, R.C.M. 1947, to change the two-year drilling requirement to five years to be compatible with the penalty payments.

The Department of State Lands concurs with the above recommendations (page 45) as does the Board of Oil and Gas Conservation (page 48). The Departments of Natural Resources and Conservation and Revenue made no comments (pages 43 and 47).

## Chapter I

### INTRODUCTION

This program audit report addresses the concept of a centralized tax and royalty collection system, the accuracy of production and tax reporting, the waste of natural gas associated with oil production, and the potential removal of oil and gas from state leases without payment.

### ORGANIZATION OF THE REPORT

The report is developed in five chapters.

Chapter I presents an introduction to the issues discussed in the report, and the objectives and scope of the audit.

Chapter II presents background information on oil and gas production and tax revenue in Montana.

Chapter III addresses the feasibility of centralized collection of the various state oil and gas taxes within one agency. This issue was evaluated to determine whether centralization can simplify the collection and verification of oil and gas taxes and increase the accuracy of production and tax revenue reporting.

Existing tax rate structures, various agency forms, and time intervals between collections were also evaluated to determine how they would affect consolidated collection.

Chapter IV addresses the problems of unnecessary waste connected with present unregulated flaring (burning off) and venting of natural gas produced in association with oil production. We note instances where recovery of such natural gas appears feasible but the gas is wasted into the atmosphere.

Chapter V analyzes the drainage of oil and gas from state lands without payment of royalties, i.e., the removal of oil and gas from state leases from wells on adjoining leases. We discuss the magnitude of the drainage problem on state land, why drainage occurs, and what can be done to prevent it from occurring in the future. We also discuss the management of unit agreements applicable to state leases. This type of agreement provides for the economical recovery of oil and gas on several adjoining leases.

#### OBJECTIVES OF THE AUDIT

The objectives of the audit were:

1. To evaluate efficiency and effectiveness of procedures used by the Department of State Lands, the Department of Revenue, and the Department of Natural Resources and Conservation in collecting revenue from oil and gas production.
2. To evaluate the waste of natural gas associated with oil production where recovery of the gas is feasible.
3. To determine if the Department of State Lands' procedures were adequate to prevent removal of oil and gas from its leases without royalty payments.

#### SCOPE OF THE AUDIT

This audit focused on procedures used by the Department of State Lands for the collection of royalties and management of state oil and gas leases; the procedures used by the Department of Revenue for the collection of its three separate oil and gas taxes and related audit efforts to verify reported taxes; and the

procedures used by the Department of Natural Resources and Conservation for the collection of the privilege and license tax and the conservation of associated gas. We also checked the amount of production and taxes reported to these three departments on 26 state oil and gas leases. In addition, we contacted other states and federal agencies to compare their procedures to those used in Montana relative to revenue collection, conservation of associated gas, and management of state leases. We also sought advice and information from private firms about the protection of oil and gas rights and the feasibility of recovering associated gas.

Our audit did not encompass the internal financial transactions of the Department of State Lands, the Department of Revenue, or the Department of Natural Resources and Conservation. Certified Public Accountants, under contract with the Office of the Legislative Auditor, completed financial/compliance audits of the Department of State Lands in 1975 and the Department of Revenue in 1975. Financial/compliance audits by the Office of the Legislative Auditor are currently in progress at both the Department of Natural Resources and Conservation and the Department of Revenue.

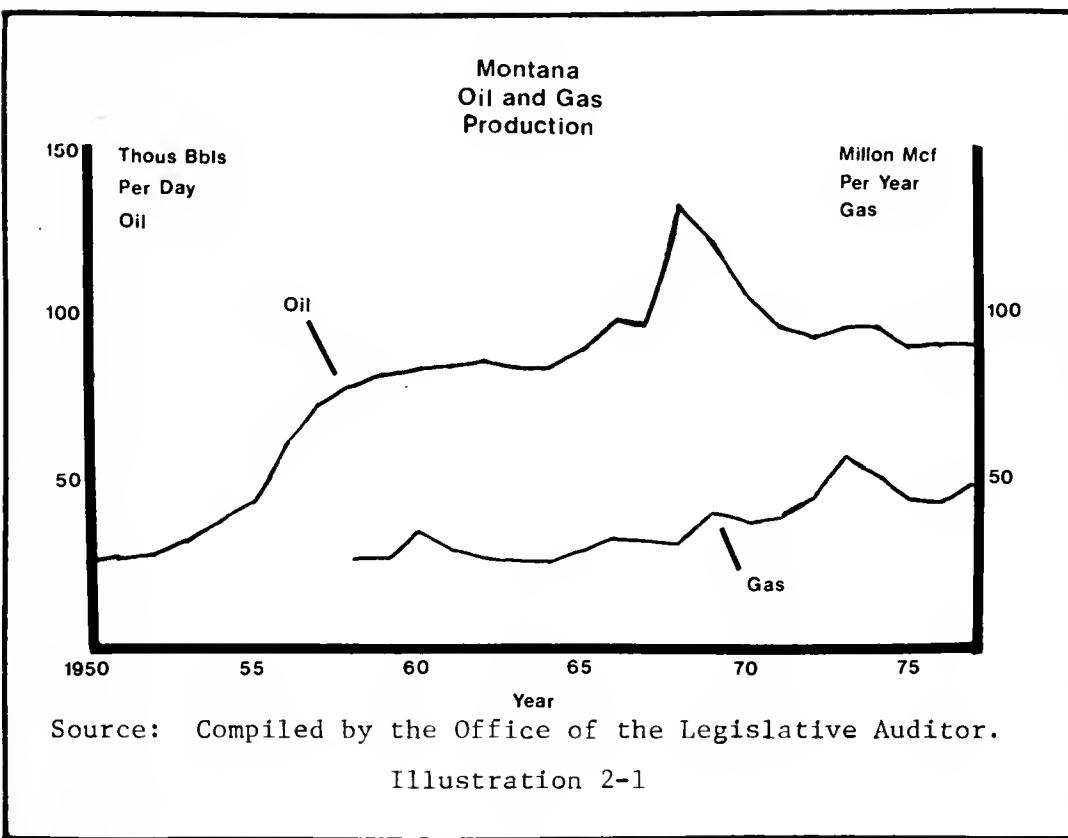
## Chapter II

### BACKGROUND

In 1892, just three years after Montana became a state, oil seepages were found around Kintler Lake near the North Fork of the Flathead River, about four miles from the Canadian border. These first signs marked the beginning of oil development in Montana. From these beginnings the significance of oil in the state increased until 1968 when production peaked at more than 130,000 barrels of oil a day. Since then production decreased to 89,600 barrels per day in 1976, or 32,800,000 barrels for the year. This amount of oil came from 3,300 wells. Natural gas production for the past 19 years has varied from a low of just under 25 million MCF (1,000 cubic feet) in 1964 to a maximum of almost 58 million MCF in 1973. Gas production for 1976 totaled almost 40,900,000 MCF's from 1,490 wells, plus 3,300,000 MCF's of associated gas--gas that occurs with oil. To see the trend in oil and gas production in the state refer to Illustration 2-1. Oil and gas development continues in the state. In 1976, 787 wells were completed of which 123 resulted in oil and 272 resulted in gas. The rest were dry holes.

Three state agencies share in the administration or management of oil and gas leases in Montana: The Board of Oil and Gas Conservation, the Department of State Lands, and the Department of Revenue. The Board of Oil and Gas Conservation has the responsibility to make sure the oil and gas resources are conserved and not wasted. The board has field offices in Shelby and Billings

and an administrative office in Helena with the state petroleum engineer and geologist located at the Billings office. This board is attached to the Department of Natural Resources and Conservation for administrative purposes. In this capacity the department collects oil and gas production data and the taxes for the board. The board received \$234,544 in fiscal year 1975-76 from the privilege and license tax to fund its operations.



The second state agency, the Department of State Lands, has over 2.5 million acres of oil and gas leases given to Montana under the Statehood Act. Two administrative personnel at the department collected almost \$6,000,000 for the support of state public schools and universities in fiscal year 1976-77. Of this, \$3.6 million came from rents and penalties and \$2.4 million from royalties.

The third agency, the Department of Revenue, collects taxes from all oil and gas production within the state. The Miscellaneous Tax Division collects and audits the returns from the Oil and Gas Producers Severance Tax and the Resource Indemnity Trust Tax (RITT), and the Property Assessment Division administers the net proceeds tax with the actual collection done by the counties. In fiscal year 1975-76, revenues from the severance tax amounted to over \$6.5 million and revenues from the RITT tax almost \$1.4 million. These collections, shown in Illustration 2-2, are direct taxes paid by the Oil and Gas Industry to the state of Montana. In addition, the industry pays the net proceeds to the counties.

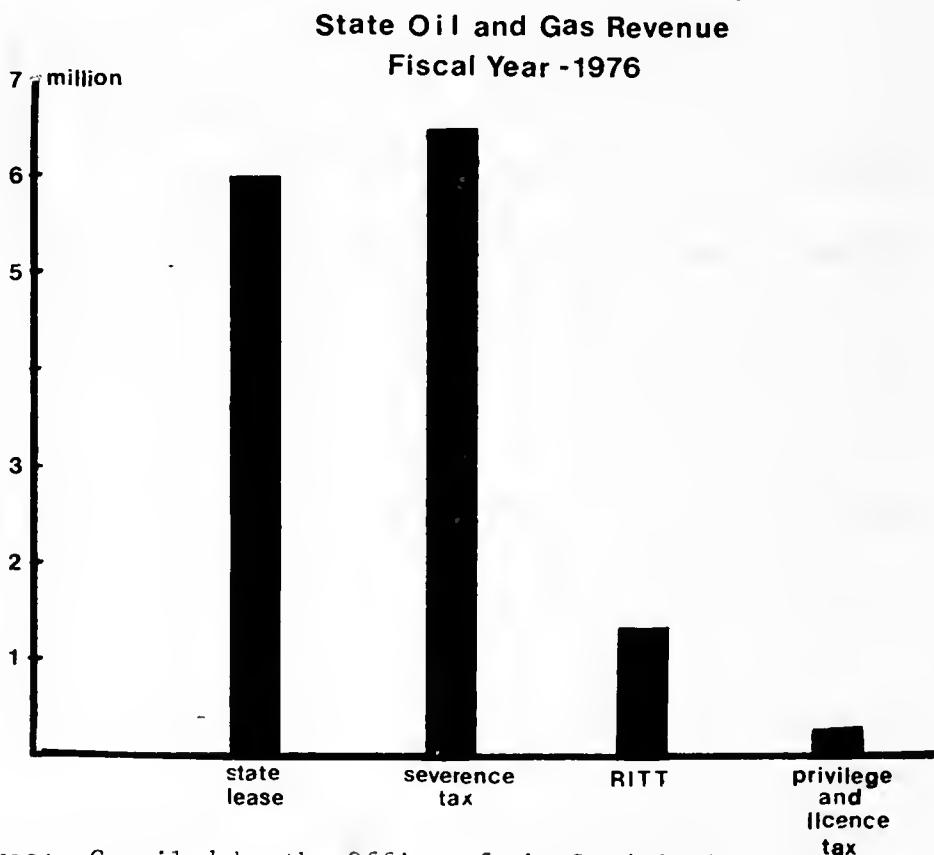


Illustration 2-2

### Chapter III

#### CONSOLIDATION OF OIL AND GAS TAX COLLECTION PROCESSES

Montana receives revenues on oil and gas operations in the state from three gross value taxes, and royalties from state oil and gas leases. In addition, counties receive property taxes on the net proceeds of producing oil and gas wells in their jurisdiction. These revenues are collected by three different state departments and the counties. With regard to the gross value taxes, the Department of Natural Resources and Conservation collects the privilege and license tax quarterly on all producing leases in the state to defray the expenses of the Board of Oil and Gas Conservation. The Department of Revenue, Miscellaneous Tax Division, collects the other two gross value taxes--the oil and gas producers severance tax quarterly, and the resource indemnity trust tax annually. Both of these taxes apply to all producing leases in the state. Next, the Department of State Lands collects royalties monthly on only its oil and gas leases. Finally, the Property Tax Division of the Department of Revenue validates the forms submitted for the annual net proceeds tax, but the counties collect the taxes.

Our review of the oil and gas tax and royalty collection system suggests that some consolidation of collection procedures is definitely feasible for the gross value taxes, and that consideration for others is warranted. A description of the applicable tax and royalty laws will assist in showing this feasibility. Illustration 3-1 summarizes the following discussion.

OIL AND GAS  
TAX, ROYALTY AND RENT DATA

<u>Tax or Royalty</u>	<u>Who Collects</u>	<u>Rate</u>	<u>Basis</u>	<u>When Paid</u>	<u>Use</u>
Privilege and License Tax	DNR for Board of Oil & Gas Conservation	.2%	Gross Value	Quarterly	Fund Boards Operation
Oil and Gas Producers Severance Tax	Department of Revenue	2.1 - 2.65%	Gross Value	Quarterly	General Fund
Resource Indemnity Trust Tax	Department of Revenue	\$25 on 1st \$5,000 .5% above \$5,000	Gross Value	Annually	Trust and Legacy Fund
Royalties and Rents	Department of State Lands	.12½-25% (royalties)	Gross Value	Monthly	Public School and University System
		\$1.50 per acre (rent)	Number of acres	Annually	
Net Proceed Tax	Counties but Administered by Department of Revenue	County mill levy	Net Proceeds	Annually	County Operations

Source: Compiled by the Office of the Legislative Auditor from Montana Laws, R.C.M. 1947, the Administrative Rules of Montana, and information received from the appropriate state agency.

Illustration 3-1

### Privilege and License Tax

The 1977 legislature changed the privilege and license tax from a tax based on the number of barrels of oil and number of MCF's (1,000 cubic feet) of gas produced to a gross value tax. Section 60-145, R.C.M. 1947, now requires oil and gas producers to pay quarterly not more than .2 percent of the market value of each barrel of crude oil and on each 10,000 cubic feet of gas produced, marketed, stored or exported from the state. The revenue from this tax is used to defray the expenses of the Board of Oil and Gas Conservation in the implementation of the law that governs their function.

Severance Tax

Section 84-2202, R.C.M. 1947, governs the severance tax charged for oil and gas based on the gross value of the product removed. The statute requires that each person producing oil or gas pay a quarterly tax to the Department of Revenue. For each lease, an oil producer must pay 2.1 percent of the first \$6,000 of the total gross value of all petroleum or crude oil produced and 2.65 percent on everything over \$6,000. Gas producers must pay 2.65 percent of the total gross value of natural gas produced from each lease. The only exception to this tax is found in Section 84-2213, R.C.M. 1947. This section exempts natural gas wells drilled between December 31, 1976 and December 31, 1980 from the severance tax for three years providing the gas is placed into a natural gas distribution system and a majority or at least 10,000 consumers are in Montana.

Resource Indemnity Trust Tax

The policy of the state of Montana as set forth in Section 84-7002, R.C.M. 1947, is "To provide security against loss or damage to our environment from the extraction of nonrenewable resources." To meet this objective the legislature created in 1973 a resource indemnity trust. To fund this trust, Section 84-7006, R.C.M. 1947, provides for a tax on all mineral production, including oil and gas. Twenty-five dollars is paid on the first \$5,000 of the gross value of the product and .5 percent on the amount in excess of \$5,000. This tax is paid annually to the Department of Revenue.

### Royalties and Rent on State Lands

Royalties and rent from state oil and gas leases help support the public school and university systems in Montana. Section 81-1704, R.C.M. 1947, states that the minimum royalty rate that the Board of Land Commissioners can charge on gas produced from state lands may not be less than 12½ percent of the gross value, and for oil wells producing 3,000 barrels or less per month, the 12½ percent royalty rate applies. However, the Board of Land Commissioners, in the Administrative Rules of Montana, assigns a higher royalty rate for a well producing over 3,000 barrels--17½ percent royalty rate on wells producing 3,000 but less than 6,000 barrels per month, and 25 percent on wells exceeding 6,000 barrels per month. In addition, the Department of State Lands collects \$1.50 for each acre of land leased on or after July 1, 1975. Prior to July 1975, the rental rate per acre was \$1.00. Finally, lease holders pay a delayed drilling penalty of \$1.25 per acre for failure to drill a well after five years.

### Net Proceeds Tax

Section 84-6203, R.C.M. 1947, provides for a county property tax based on the net proceeds of the gas or petroleum products removed. The tax proceeds are determined by deducting certain operating expenditures including royalty payments from the gross value of the oil and gas sold and applying the county mill levy to the net proceeds. The Department of Revenue, Property Tax Division, verifies and approves the operator's returns, showing gross value and operating expenses and sends the forms to the

operator's county. The county then applies its mill levy to the net proceeds and collects the taxes and uses the money to fund county operations.

To summarize, the Department of Natural Resources and Conservation, for the Board of Oil and Gas Conservation collects quarterly the privilege and license tax. The Department of Revenue, Miscellaneous Tax Division, collects the severance tax quarterly, and the resource indemnity trust tax annually. The Department of State Lands collects royalties monthly and rents annually on state oil and gas leases. The Property Tax Division of the Department of Revenue administers the net proceeds tax which is collected annually by the counties.

#### CONSOLIDATION OF GROSS VALUE TAX COLLECTION

Several compelling reasons exist for consolidating the collection of the three gross value taxes. The reasons for consolidating the collection of the privilege and license tax, the oil and gas severance tax, and the RITT tax include having audits done on the privilege and license tax and reduced paperwork for the oil and gas operators and the state.

The Department of Revenue, Miscellaneous Tax Division, presently audits only the returns for the severance tax and the RITT tax. The privilege and license tax and the royalties paid on state lands receive no audit. To illustrate the advantages of auditing, the audit function for the Miscellaneous Tax Division at the Department of Revenue collected over \$194,000 based on audits done in fiscal year 1976-77 at a cost of just over \$52,000.

For one company the division recovered over \$10,000 based on a discrepancy in reporting production and a failure to report price increases. If the privilege and license tax was consolidated and collected with the severance and RITT tax, the Board of Oil and Gas Conservation would automatically have its returns audited. We do not recommend consolidating the collection of royalties on Department of State Lands' oil and gas lease with the taxes and the reasons for this are discussed later along with a method that will allow the Department of State Lands to take the advantage of the Department of Revenue's audits.

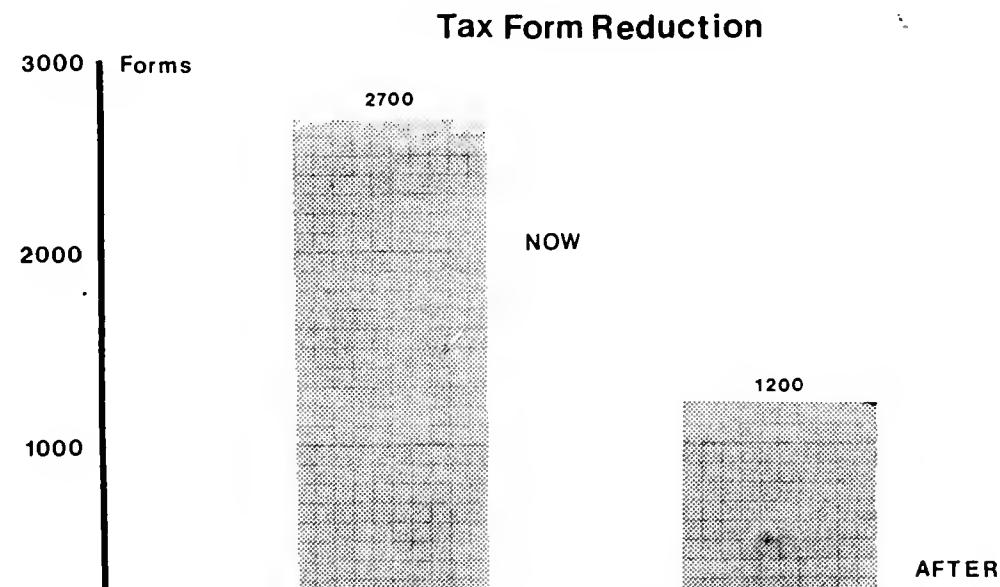
Approximately 300 oil and gas well operators in Montana submit forms each time one of the above taxes is due. In other words, 300 forms for the privilege and license tax each quarter, 300 forms each quarter for the severance tax, and 300 forms each year for the RITT tax. This is a total of approximately 2,700 forms per year.

Operators must prepare these 2,700 forms and the state must process them. If collection of these three taxes were consolidated and reported on one form and reported quarterly, the number of forms prepared by the operators and processed by the state would be reduced from 2,700 to 1,200 per year, a 56 percent reduction.

One problem that must be addressed is that RITT tax records, while public documents, are considered confidential by law (Section 84-7013, R.C.M. 1947). The information that presently appears on the privilege and license tax and the oil and gas producers revenue tax is not confidential. This information is

essentially the same information that is on the RITT tax form. Therefore, there appears no real need to make the oil and gas RITT tax returns confidential.

If all the above proposals affecting the collection of taxes were implemented, the number of tax forms submitted by the oil and gas industry and processed by the state could be drastically reduced as can be seen in Illustration 3-2.



Source: Compiled by the Office of the Legislative Auditor

Illustration 3-2

If the collection of the RITT tax, the privilege and license tax, and the oil and gas producers revenue tax are consolidated, those taxes presently going to earmarked revenue funds would continue going to those funds.

VALUE--SOLD VS. PRODUCED

Royalties and taxes, by law, are based on the value of the product at the time it is produced, not when it is sold. However, as a matter of practice the Department of Revenue instructs operators to use the selling price. The latter appears preferable since it can be readily verified. Sixteen states responding to our questionnaire indicated they calculate taxes based on value of the product when sold, and only ten at time of production. (See appendix.) Inasmuch as the Department of Revenue now requires operators to determine value at the point of sale, applicable laws should be changed to reflect this situation.

RECOMMENDATION

We recommend that:

1. *Legislation be enacted to enable collection of the oil and gas severance tax, the privilege and license tax, and Resource Indemnity Trust Tax by the Department of Revenue on a quarterly basis on a consolidated return.*
2. *Legislation be enacted to address the confidentiality of the respective tax information.*
3. *Legislation be enacted to amend Sections 81-1704, 84-2202(1), 84-7006, and 60-145(1), R.C.M. 1947, to require payment of taxes or royalties based on the value of the oil and gas when sold rather than when produced.*

## ROYALTIES ON STATE LEASES

The disadvantages exceed the advantages of consolidating royalty collection from state leases with the collection of the three taxes. There are several reasons. First, state oil and gas leases are not applicable to total production as are the three gross value taxes. This would require collection and reporting on an exception basis if combined with the taxes because royalties are paid to the state only on state leases, while the three taxes are paid on production from all leases in the state. Second, penalties of \$1.25 per acre must be assessed and collected after the fifth year of a lease if the operator fails to drill a producing well. The Department of State Lands could not administer penalties without access to the royalty reports. Unless duplicated, these reports would be at the Department of Revenue if royalties were consolidated with the tax collections. Finally, the Department of State Lands receives queries on state leases. These queries would be difficult to answer without convenient access to the royalty reports.

In response to a questionnaire, other states indicated a tendency to have the agency that manages their state lands also collect the royalties. Nineteen states fall into the above category, and six states have other agencies collect the royalties. (See appendix.)

While consolidating the collection of royalties with the other three taxes does not appear advantageous, there should be an exchange of information between the Department of State Lands and the Department of Revenue. Presently, there is no formal

program for the exchange of information between the two agencies. As already mentioned, the Department of Revenue has successfully adjusted tax collections through its audit efforts. However, the Department of Revenue has not established procedures to notify the Department of State Lands when state leases are involved. Consequently, any instance of audit adjustments where state oil and gas leases are involved should be transmitted to the Department of State Lands for corresponding correction of royalty payments. Further, our comparison of production, prices, and total value of oil and gas reported to the Department of State Lands and the Department of Revenue showed instances when the volumes and the values reported to the Department of State Lands were less than those reported to the Department of Revenue. These differences, while not significant, showed that the Department of State Lands may not be getting all the income it is entitled to. On the other hand, we found instances where the amounts reported to the Department of State Lands were higher than those reported to the Department of Revenue. This would indicate that the Department of Revenue could benefit by knowing the amounts reported to the Department of State Lands prior to an audit to identify possible under-reporting.

RECOMMENDATION

*We recommend that the Department of Revenue:*

1. *Establish formal procedures for reporting any audit discrepancies found concerning state leases to the Department of State Lands.*
2. *Include in its audit plan a step to check the Department of State Lands royalty reports for any*

*possible discrepancy in reported production between the two departments.*

## Chapter IV

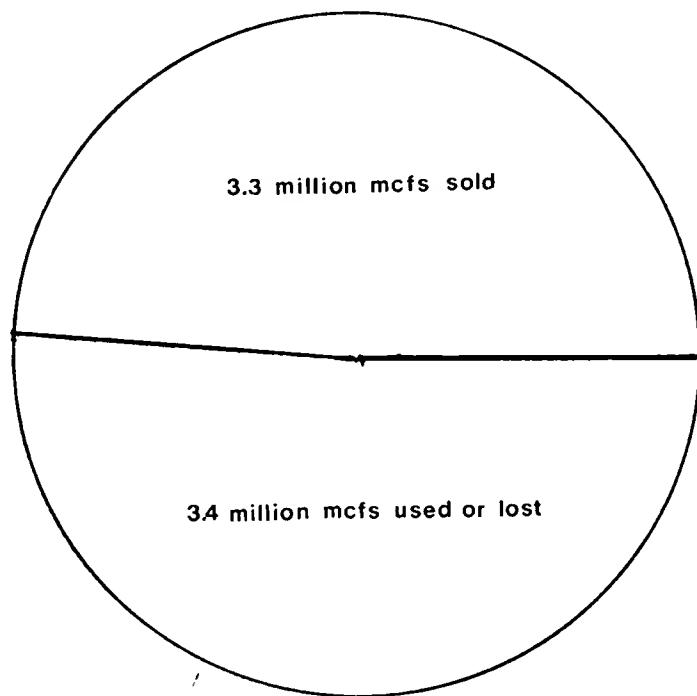
### WASTE OF NATURAL GAS

Natural gas is found underground in two circumstances--by itself or in association with oil. The latter, often called associated gas or casinghead gas, is the subject of this chapter. Once the natural gas is obtained from either source, it must be marketed, retained, or disposed of in some other fashion. A natural gas well presents an easier situation to cope with than associated gas from an oil well, because if a gas pipeline is not established for ease of marketing, the well can be capped until a distribution system is constructed. During 1976, about 50 percent of new wells, when gas was found, were capped and production withheld to enable future marketing. However, with associated gas, which results from producing oil wells, termination of the production also stops the flow of oil. Obviously, this is not a desirable alternative for the firm which has invested a substantial sum in drilling the oil well. In Montana, unless there is a means of capturing and distributing the associated gas, it will normally be lost into the atmosphere through venting or flaring. Venting takes place when the gas is in small enough quantities that it presents no danger to equipment or personnel. If the gas occurs in larger quantities it must be flared or burned. Once vented or flared the gas is lost forever. This loss is costly to the state as a source of taxes and royalties; to oil well operators as a possible source of profits; and to society as a source of energy to run industry and heat homes and violates Section 60-127.1, R.C.M. 1947. Also a shortage of natural gas exists in the

eastern part of the state, the area of the state where associated gas is wasted the most. (See Illustration 4-3.) To satisfy the state's natural gas needs, natural gas has to be imported from Canada.

Capturing of this associated gas is a common occurrence in Montana. Operators sold over 3.3 million MCF's (1,000 cubic feet) in 1976. However, it is more common to waste this valuable resource. Illustration 4-1 shows the usage and waste of associated natural gas. Oil well operators in Montana used (to run oil pumps and heater treaters), or lost in the field, 2.6 million MCF's and vented or flared .815 million MCF's in 1976. The last two amounts (2.6 and .815 million MCF) represent 51 percent of the associated gas produced in 1976. Records do not show how much of the 2.6 million MCF was actually used. However, an official at the Interstate Oil and Gas Compact Commission in Oklahoma City, Oklahoma, estimated at the most only 10 percent is actually used in the production process; the rest is lost. In contrast to this, the state petroleum engineer estimates that in eastern Montana 44 percent of the associated gas produced is used on the lease. The .815 million MCF represents amounts which some operators voluntarily identified as vented or flared. To help visualize the significance of .815 million MCF of gas, we estimated that 2,440 homes in Montana could have been heated with the methane from this gas in 1976. Illustration 4-2 demonstrates housing in Montana cities or counties which this methane gas is capable of heating. Further, the propane and butane in the associated gas could heat additional homes.

**Associated Gas Produced  
in Montana  
1976**

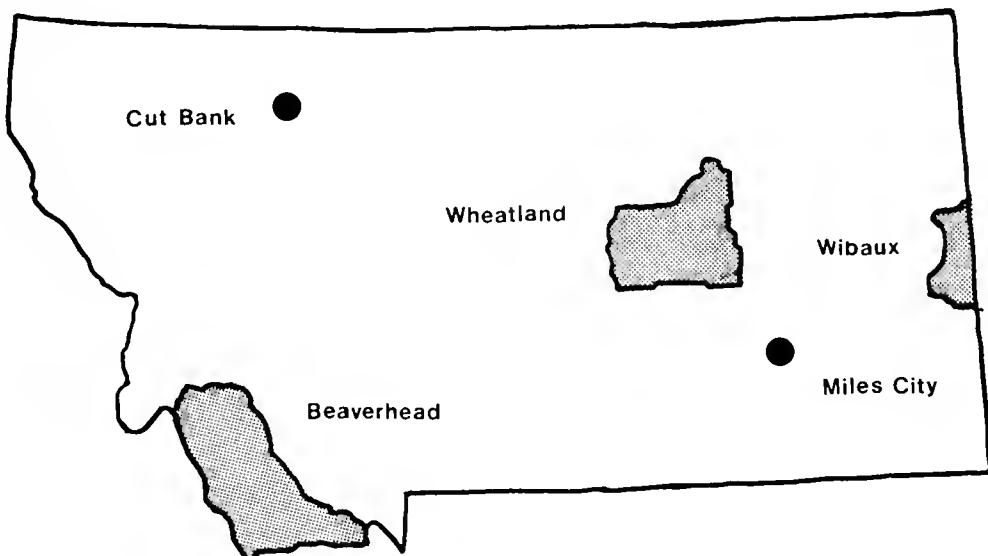


Source: Compiled by the Office of the Legislative Auditor from records at the Department of Natural Resources and Conservation

Illustration 4-1

## Potential Use of Flared

### Associated Gas



The .8 million MCF's of associated gas flared or vented in 1976 could have heated the homes in Cutbank and Miles City or the homes in Beaverhead, Wheatland, and Wibaux counties for one year.

Source: Compiled by the Office of the Legislative Auditor from data received from the Department of Natural Resources and Conservation, Montana-Dakota Utilities, and the Department of Commerce - Bureau of the Census, 1970 Census of Housing, June 1971.

Illustration 4-2

The effect of venting or flaring the 815,000 MCF's on tax revenues to the state of Montana in 1976 was a loss of approximately \$18,800 assuming a selling price of \$0.70 an MCF. One utility company in the state currently pays that much on the average for an MCF of gas. The privileged and licensure tax would have been approximately \$1,100, the resource indemnity trust tax \$2,800, and the severance tax \$14,800 on this lost gas.

## MARKETING OF ASSOCIATED GAS

The marketing decisions relative to associated gas are determined on the basis of economics. Two primary means of distribution exist, each with different costs. The first, the one traditionally used by the petroleum industry, calls for building a pipeline from the oil field to the marketing system. The marketing system can be either a utility pipeline such as the pipelines used by two utilities in Montana, or a direct user such as an industrial plant situated close to the field. The second involves transporting the gas in pressurized trucks from the well site to a market.

### Costs

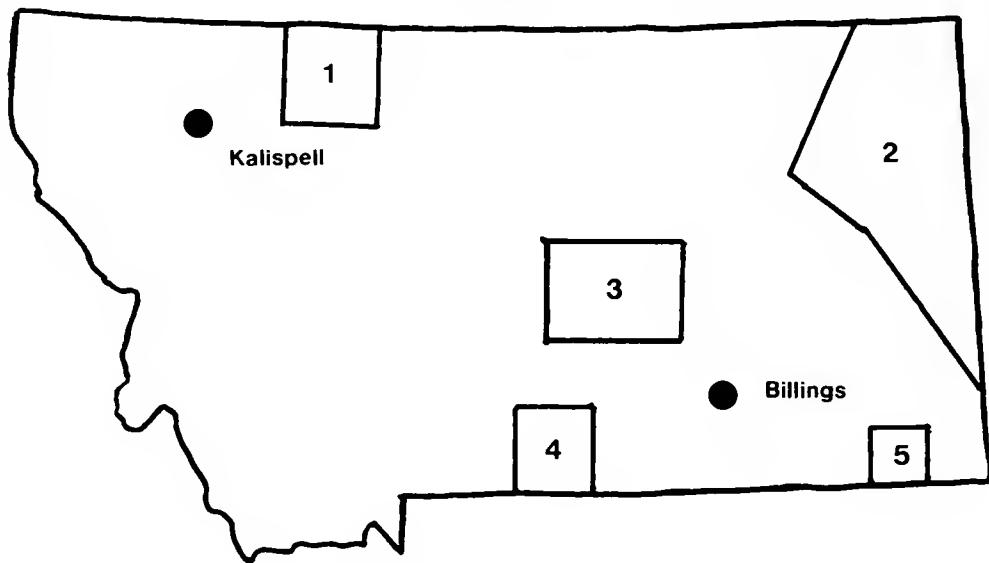
The most significant aspect of putting in a pipeline, except under the most favorable circumstances, is its high cost. A six-inch pipeline costs approximately \$35,000 per mile, but varies depending upon the terrain, the volume of gas, and the pressure of the gas. At \$35,000 a mile, a \$1 million investment would build a pipeline just over 28 miles. The quantities of associated gas available in many locations do not justify such an investment.

The other means of distribution is a fairly recent development. Within the past two years technology for transporting natural gas in pressurized tanks on trucks has become commercially available. This technology uses a system of portable compressors and other equipment to remove the liquid gas and impurities (hydrogen sulfide, propane, butane, etc.) and requires

only about two weeks after delivery of equipment to become operational. The investment is modest compared to a pipeline and has greater flexibility, since it can be moved to another location when the field is depleted. In addition, the people marketing this system advise us that this equipment will work in a cold climate such as Montana.

The principle areas of associated gas production appear in Illustration 4-3. These production areas generally indicate where oil is being produced in the state. To explore the possibility of trucking gas in Montana we had a firm in this business do a cost analysis based on lost associated gas volumes for oil production areas.

**Associated Gas  
Wasted (Mcf)  
1976**



<u>Area</u>	<u>Total Used/Lost</u>	<u>Specific Vented/Flared*</u>
1	213,372	17,891
2	2,218,939	614,359
3	311,182	156,193
4	647,880	-0-
5	17,784	-0-
	<u>3,409,159</u>	<u>815,443</u>

\*Of the total amounts used or lost these quantities were specifically identified as vented or flared on the Form 6.

Source: Compiled by the Office of the Legislative Auditor

Illustration 4-3

The first cost analysis in Illustration 4-4 considered a volume of 500 MCF's per day, a 15 PSI (pounds per square inch) well delivery pressure, a 450 PSI pipeline delivery pressure, and 70 miles distance between the field and the gas pipeline. The second cost analysis considered a daily volume of 580 MCF's, a

300 PSI well delivery pressure, a 700 PSI pipeline delivery pressure, and a 70 mile distance between the field and the market. The cost analysis, using a five-year period with a 20 percent salvage value for the equipment, is as follows:

<u>COST PER MCF</u>		
<u>Item</u>	<u>500 MCF Per Day</u>	<u>580 MCF Per Day</u>
Equipment	\$ .31	\$ .18
Transportation	.90	.90
Maintenance	<u>.05</u>	<u>.02</u>
Total Cost per MCF	<u>\$1.26</u>	<u>\$1.10</u>

Source: Compiled by the Office of the Legislative Auditor

Illustration 4-4

The first example represents a situation we found in the northeast corner of the state--area 2. The second example approximates a situation we found in area 3. Here associated gas from eleven oil wells moves through pipes to a gas plant where the liquids, propane, and butane are taken out. The residue gas of approximately 580 MCF's per day returns to the oil field. Most of this returned gas is vented or flared, but some is used to run oil well pumps and heater treaters--units that separate water from the oil. The potential wastes through unnecessary flaring and loss could be much greater than in these two examples. We did not analyze the other areas.

Price

The costs of gathering and marketing the gas in the above situations are of course rough estimates, but a comparison with possible revenues suggests that the gas should be recovered and marketed rather than lost. The outlets for gas available to a seller include intrastate and interstate markets. The intrastate market is unregulated and buyers and sellers negotiate the price of gas. Recently gas has sold for as high as \$2.45 per MCF. While getting \$2.45 per MCF is unusual, it is attainable.

The interstate market is regulated by the U.S. Department of Energy with a structured price. The basic interstate price depends on the date of drilling and is as follows:

<u>Date of Drilling</u>	<u>Price Per MCF</u>
Prior to 1973	\$ .54
January 1973 - December 1974	.95
January 1975 and later	1.48

These prices are not totally fixed--they escalate 1¢ per quarter. Also, for wells drilled prior to January 1975, small producers--those who produce 10,000 MCF's or less per year for interstate sales--can get a 30 percent bonus. This bonus would increase the 54¢ ceiling to 69¢ and the 95¢ ceiling to \$1.22.

Additionally, the U.S. Department of Energy, formerly the Federal Power Commission, allows exceptions to the regulated prices for interstate sales where continued production at existing prices is uneconomical. Rather than let the operator abandon the well, the department permits him to make an additional investment and allows him to sell the product for more than the regulated price in order to cover his costs. The departments' rules

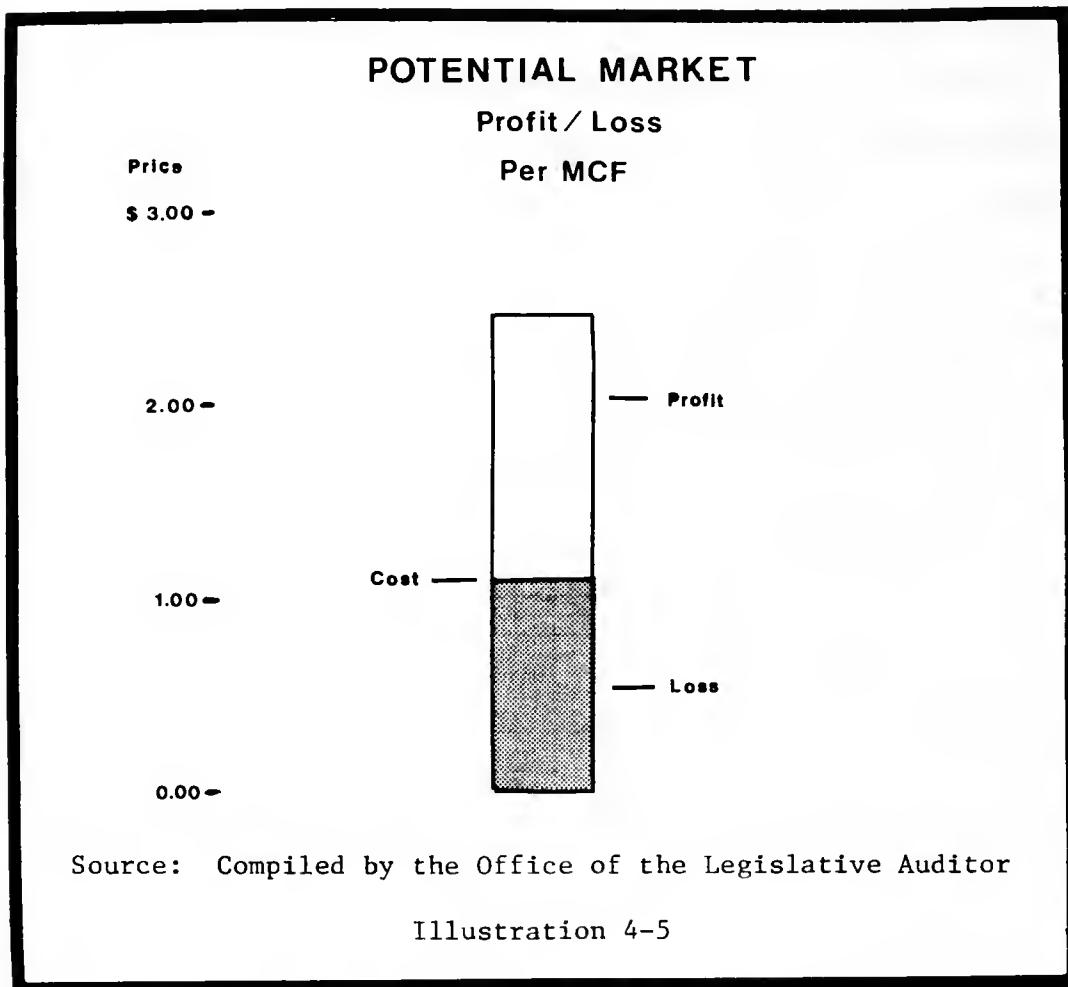
and regulations, according to an Energy Department official, cover the above circumstance. This, he said, could be applied in a situation where an oil well operator can market the oil profitably but not the associated gas. The operator can apply for price relief under this section and earn a 15 percent return on his investment as long as he has a buyer for his gas who is willing to pay the price allowed by the department.

#### Profit

The price that an oil well operator receives for associated gas in today's market ranges from 54¢ to whatever the seller and buyer can negotiate--as high as \$2.45. (See Illustration 4-5.) For the two situations we discussed previously, the prices allowed for pre-1973 gas do not provide an incentive for an operator to gather and market the gas, but provisions in the U.S. Department of Energy's rules and regulations do. Considering the recent negotiated rate of \$2.45 per MCF in the unregulated gas market, a gas plant operator could earn approximately \$1.45 per MCF and the operator in the oil field in northeast Montana \$1.19 per MCF. The above two situations are the only two we examined in any detail. Observation of volumes shown on Illustration 4-3 suggests that the potential for economical recovery of lost associated gas exists at other locations in the state.

The Montana Board of Oil and Gas Conservation is charged by statute with preventing the waste of associated gas. Section 60-127(1), R.C.M. 1947, states that "The Board shall make such

investigations as it considers proper to determine whether waste exists or is imminent or whether other facts exist which justify any action by the Board. . . ." Further, Section 60-127.1, R.C.M. 1947, prohibits the waste of oil and gas.



The board has been granted authority to regulate the oil industry to prevent waste but does not seek out operators that unnecessarily vent or flare associated gas. We found only one instance where the board became involved in curtailing or stopping the loss of associated gas. In that instance, the Legislative Consumer Committee identified to the board a situation where an

operator flared a large amount of gas. The Board of Oil and Gas Conservation, after investigating this incident, sent a letter to the operator of the well requesting him to curtail production so that the maximum daily gas volume does not exceed 600 MCF. While this is not unique among the oil-producing states, there are other states that take a more aggressive stance on preventing the waste of associated gas. Since this audit began, the board has held hearings on adopting rules against flaring and anticipates finalizing their rules in August 1978. Further, the industry is installing a gas plant and pipeline in eastern Montana to market additional associated gas.

#### OTHER STATES' REGULATION OF FLARING

Most of the states involved in regulation of oil and gas production indicated that they do not allow operators to flare gas. The response to a questionnaire showed that 17 states do not allow flaring as a matter of routine (see appendix), and that when it is permitted the operators usually must justify the need. For example, North Dakota, Wyoming, Texas, Oklahoma, and California all have laws or rules and regulations that prohibit the waste of oil and gas but permit flaring if the gas cannot be profitably marketed. These states consider flaring associated gas a waste and therefore prohibit it. However, the approach taken by those states to implement their laws differs from Montana in that they are more active and aggressive in seeking to prevent the waste of associated gas. The methods used, however, differ slightly from state to state.

Wyoming uses two inspectors that go to the oil fields and check on operators who flare associated gas. Before going to the fields, these inspectors identify operators who waste gas from production reports that indicated the amounts of vented or flared gas at oil wells. If between the production reports and the field reports the commission feels an operator is wasting gas, the commission will call a hearing. At that time the operator must justify his venting or flaring of gas. If he fails to give a satisfactory explanation, the commission could shut him down.

In Oklahoma, field inspectors identify operators who flare or vent large quantities of gas, and also rely on concerned citizens' reports of violations of the law. If the board believes an operator is wasting gas, they first warn him to stop the practice. If the operator disagrees with the commission, the commission, when necessary, calls a hearing to evaluate the situation. If the commission finds it is economical to market the gas, they will shut down the well until the operator complies with the commission's finding. Using this method, Oklahoma prevents operators from producing oil if they flare as little as a half a million cubic feet a day. California and Texas also identify and prosecute violators in much the same way as Wyoming and Oklahoma.

Several common themes emerged from our discussions with the above states. One theme was that these states, as a matter of practice, consider the flaring or venting of associated gas wasteful only when it is economical to gather gas. When the gas cannot be economically recovered, these states permit flaring.

The second theme that surfaced was that each flaring case must be considered on its own merits. For each situation many different factors affect profitability. These factors include: the number of MCF's flared per day, the pressure of the gas, the amount of gas in the reservoir, the amount of impurities, the distance and terrain to market, and, of course, the selling price.

In addition to the methods of preventing the waste of associated gas already mentioned, a Wyoming Oil and Gas Conservation Commission staff member and the executive director of the Interstate Oil Compact Commission suggested another--that no flaring be allowed unless the operator first received permission from the state Board of Oil and Gas Conservation. This puts the burden on the operator, not on the Board of Oil and Gas Conservation. While this approach would probably be very effective in reducing the amount of flared or vented gas, it may be a burden to operators who flare small amounts of gas and on the Board of Oil and Gas Conservation to process all these requests.

Sections 60-127 and 60-127.1, R.C.M. 1947, appear to provide sufficient authority to prevent wastes of natural gas. However, the board needs to emphasize the prevention of waste by seeking out potential abuses. To do this, the Board of Oil and Gas Conservation should identify operators that are wasting gas that potentially could be recovered and issue a permit to flare gas to those who, based on economics, can justify flaring. The present Board of Oil and Gas Conservation's report, Form 6, could easily

be changed to include a category for flared gas.<sup>1</sup> The U.S. Geological Survey requires this for federal leases. These reports would give the board a clue as to which operators are flaring excessive amounts of gas. The board can then use this data to investigate the feasibility of gathering and marketing the gas. The board should develop a positive program to actively seek out and prevent waste of oil and gas products.

RECOMMENDATION

*We recommend that the Board of Oil and Gas Conservation:*

1. *Revise the production report form to indicate the volume of flared or vented gas and provide for periodic testing of its accuracy by field personnel.*<sup>2</sup>
2. *Require operators to submit economic justification depicting that recovery of associated gas is/is not feasible.*
3. *Authorize flaring where recovery is not feasible.*
4. *Suspend or curtail the operation of wells which flare without authorization.*

---

<sup>1</sup> We have been advised by the board that the Form 6 has been changed to show the amounts of gas flared.

<sup>2</sup> Ibid.

## Chapter V

### DRAINAGE AND UNIT AGREEMENTS - CONTROLLING

#### REMOVAL OF STATE OIL AND GAS RESOURCES

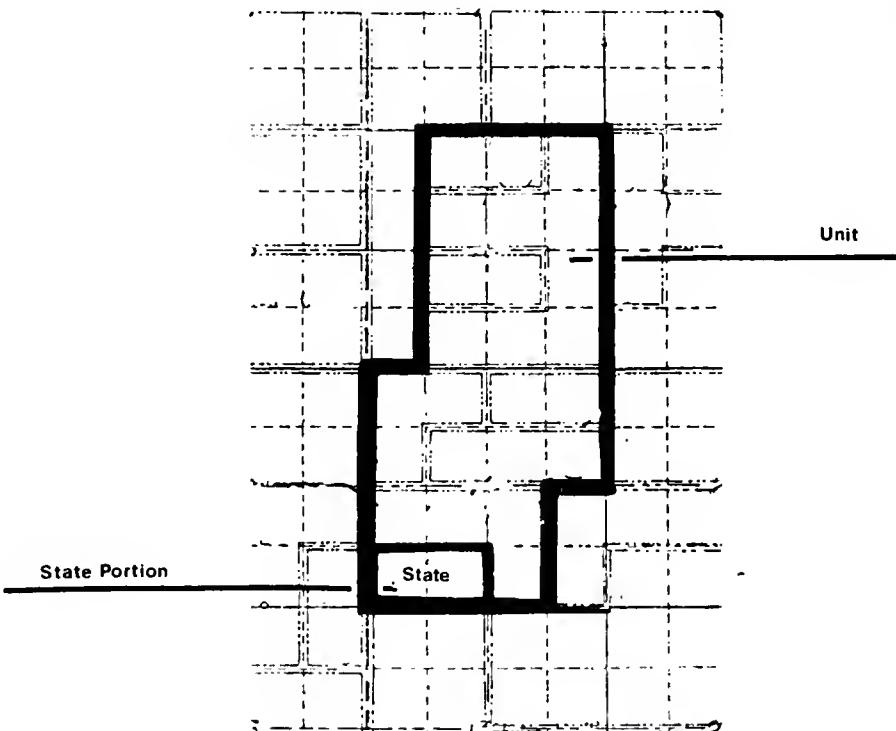
Oil and gas underground reservoirs do not necessarily correspond to the ownership boundaries of surface land rights. Generally, either of these products flow to the point where drilling allows escapement or recovery of the trapped petroleum. The above phenomena can allow drainage of oil or gas from a lease to a producing well on an adjoining lease. There are two methods of coping with such a situation--require drilling of an offset well to recover the oil deposit beneath a lease and/or the establishment of unit agreements. Unit agreements, also known as pooling or compensatory agreements, are based on an assessment of the entire oil and gas deposits under each lease in the oil field. With these agreements, participants including the Department of State Lands, receive an equitable percentage of the revenue based on investment, expenses, and projected oil deposits under their lease. A qualified engineer or geologist determines the fair participation rates, and lessors receive royalties based on their share of the revenue. Illustration 5-1 shows a map of an operating unit agreement where the state is a participating member of the unit. Both the drainage of petroleum from state leases and the management of unit agreements are discussed in this chapter.

#### DRAINAGE

The actual amount of drainage caused by a single well will vary depending upon geological characteristics of the oil-bearing

formation, size of the oil deposit, and drilling processes involved. The time it takes to drain a particular reservoir, whether it be one year or 40 years, is also dependent upon these factors. Drainage of oil or gas from state-leased land results in revenue losses to the Department of State Lands.

### Unit Agreement



Indicates state leased land lying with a designated unit agreement.

Source: Compiled by the Office of the Legislative Auditor

Illustration 5-1

Current oil and gas lease agreements issued by the Department of State Lands, have a clause that if enforced, would protect state lands from being drained. Item 13 of the lease agreements

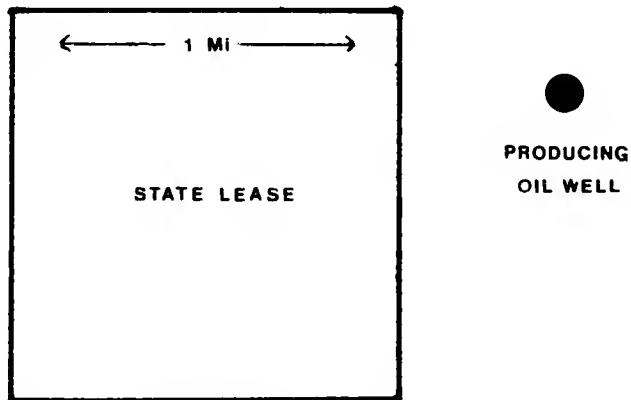
states, in part, ". . . The lessee shall commence promptly and diligently to drill to completion all wells necessary on the lands under this lease in order to fairly offset commercially producing oil wells on contiguous lands." These procedures are designed to protect state leases from being drained by wells on adjoining property. The department, however, does not have staff to determine the need for offset drilling nor does it enforce this provision of the lease. The department limits its functions to recording and collecting rent from all leases, royalties from productive leases, and penalties of \$1.25 per acre per year from nonproductive leases after the fifth year. The latter, a statutory requirement, is the only monetary incentive imposed by the department to encourage lessees to drill.

While reviewing the statutes relative to state oil and gas leases, we observed an inconsistency in Section 81-1702.2, R.C.M. 1947. This section allows a lease to be terminated at the end of the second or any subsequent year and provides for a \$1.25 per acre penalty after five years if the lessee fails to drill a well. This discrepancy relates back to 1965 when the law was amended to eliminate a penalty during the third through fifth years. The Department of State Lands attorney advised that a two-year termination clause was inadvertently not changed from two to five years when the penalty period was extended. This inconsistency should be corrected.

To determine if potential drainage situations from the state leases exist we examined the producing oil fields in Richland

County. Our evaluation considered all producing wells and their proximity to state leases. We found that holders of several state leases next to private land with producing wells had not complied with offset drilling requirements of the lease. Further, the department had not required a unit agreement to obtain the state's share of the pool. These particular lessees, however, were paying the required penalty payment as stipulated in cases where at least five years had elapsed on the lease. When these leases were discussed with the state petroleum engineer, he concurred that the leases represent potential drainage situations and revenue losses to the state. Illustration 5-2 shows a hypothetical example of a state lease being drained by an adjoining oil well.

### Drainage Example



Shows potential drainage from state lease by an adjacent oil well.

Source: Compiled by the Office of the Legislative Auditor

Illustration 5-2

The actual loss attributed to the failure to offset drill or obtain unit agreements cannot be measured. However, actual production from adjacent wells in the above three locations was significant--approximately 120,000 barrels during 1976. The oil was sold at an average price of \$12.25 per barrel for total revenue of \$1,470,000. The state received no royalty revenue payments, but they probably should have received some of the \$165,000 in royalty payments. The statewide significance of this possible loss can be grasped by the fact that Richland County produced approximately 6 percent of the oil coming from Montana's fields in 1976. Should the drainage potential exist in other producing counties, an even greater effect on revenue may exist within the state as a whole.

To determine how other lessors of oil and gas property in Montana restrict drainage from their leases, we contacted the Burlington Northern Railroad and the United States Geological Survey (USGS). Both monitor new well discoveries and starts to determine if any adjoin their leases. Upon finding a new well adjacent to their lease, geologists or reservoir engineers determine whether drainage could occur, and react accordingly to make the lessee drill an offset well, a well to prevent drainage from an adjoining lease, within 30 to 90 days. In the absence of offset drilling, they require a compensatory agreement based on the estimated percentage of oil under the leased land. If the lessee does not drill a well or agree on a compensatory agreement the lease is terminated. In addition to contacting Burlington Northern and the USGS, we surveyed other oil and gas producing

states and found that almost all have measures to preclude drainage from state lands. Specifically, Oklahoma, Texas, New Mexico, and Wyoming use procedures that closely parallel those employed by the Burlington Northern and the USGS.

The Department of State Lands does not monitor new wells drilled that adjoin its leases nor does it employ the necessary expertise to determine if oil and gas is being drained from under its leases. In addition, the Board of Oil and Gas Conservation cannot do this--it lacks the personnel and time. Without determining whether wells adjacent to state leases are draining oil and gas from them and without employing the necessary expertise to analyze the extent of this drainage, the Department of State Lands cannot require the lessee to drill on the state lease, or recognize the need of a compensatory agreement. Each of these deficiencies enhances the possibility of royalty losses to the state.

#### UNIT AGREEMENTS

Underground oil and gas reservoirs seldom correspond to surface land rights. Although mineral rights to the reservoirs are based on surface rights, the recovery process is based on the flow of the fossil fuels to well locations. This underground flow of fuel makes it possible to recover a substantial portion of the reservoir reserves with a limited number of wells, along with cycling and secondary recovery techniques. The last two maintain or increase reservoir pressure to maximize the amount of oil extracted from the field. This also creates a need to protect

the surface rights of owners because the amount of oil or gas withdrawn from under the surface does not correspond to the surface property rights. The means used in the petroleum industry to assure a reasonable allocation to each lease of the oil or gas taken out to each lease is a pooling or unit agreement. A unit agreement, as defined by Williams and Meyer, in Oil and Gas Terms, is "An agreement or plan of development and operation for the recovery of oil and gas made subject thereto as a single consolidated unit without regard to separate ownerships and for the allocation of costs and benefits on a basis as defined in the agreement or plan."<sup>1</sup>

Some of the state leases are incorporated into unit agreements. Generally, the unit agreements are formulated by the operator of the oil or gas field. However, each party having mineral rights to the reservoir must agree to the percentage of participation from the field and sign the unit agreement. The Department of State Lands staff does not include a geologist or reservoir engineer and consequently they are unable to evaluate the unit agreements. As an alternative, when the Department of State Lands enters into a unit agreement, they send the agreement to the Board of Oil and Gas Conservation for review. According to the board staff they lack the resources to do an adequate analysis. They can look at the methodology used to determine the participation rate, but they cannot make the necessary detailed calculations.

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<sup>1</sup> Howard R. Williams and Charles J. Meyers, Oil and Gas Terms (Matthew Bender, 1976), page 624.

Also, the board is required to hold hearings and issue orders regarding unit agreements that affect participation rates. To act in this capacity and also look out for the interest of one of the members of a unit agreement indicates an inherent conflict.

Other groups in Montana leasing oil and gas use petroleum experts to evaluate participation rates for their unit agreements. For example, the Burlington Northern Railroad and the United States Geological Survey have employed staff with the expertise necessary to evaluate unit agreements. Officials of these organizations advised that unit agreements are analyzed in detail to assure the proper participation percentages. In addition, we found other states where a qualified individual reviews unit agreements. Twenty-four of the 27 states that responded to our questionnaire have an expert to make sure they are receiving a fair participation rate for their state lands. (See appendix.) One state uses oil and gas commission personnel to do this; another a natural resources committee; and a third uses a full-time staff of engineers and geologists employed by their state mineral board.

The Department of State Lands, as mentioned previously, has some of their leases under unit agreements. We also observed that the Department of State Lands does not always have copies of these agreements. For example, in sampling production reports for leases we found four instances where unit agreements that show participation percentages were not on hand at the department. Without the agreement neither we nor the Department of

State Lands could be sure they received the correct amount of royalties from these leases.

RECOMMENDATION

*We recommend that the Department of State Lands:*

1. *Maintain current files on all unit agreements which concern oil and gas leases of state lands.*
2. *Revise the state lease form to provide for a compensatory unit agreement in addition to offset drilling.*
3. *Obtain the necessary expertise and assistance for monitoring oil and gas drilling activity within the state and for evaluating unit agreements to permit protection of royalties due from state leases on both primary and secondary recovery projects.*
4. *Enforce the provisions of the lease with respect to offset drilling or compensatory unit agreements.*

*We recommend that legislation be enacted to amend Section 81-1702.2, R.C.M. 1947, to change the two-year drilling requirement to five years to be compatible with the penalty payments.*

## Appendix

### RESPONSE TO SELECT QUESTIONS IN QUESTIONNAIRE SENT TO OIL AND GAS PRODUCING STATES

Basis of Value <u>Sold/Produced</u>	Does Department Managing State Lands Collect Royalties	Unit Agreement Evaluated by Qualified Individual
Alaska	Pr	Y
Arizona	Pr	Y
Arkansas	S	N
California	Pr	Y
Colorado	S	Y
Florida	Pr	N
Indiana	Pr	N
Kansas	NA	NA
Kentucky	S	Y
Louisiana	S	Y
Maryland	Pr	Y
Michigan	S	Y
Mississippi	Pr	Y
Nebraska	S	Y
Nevada	Pr	NA
New Mexico	S	N
New York	NA	N
North Dakota	S	Y
Oklahoma	S	Y
Ohio	S	Y
Pennsylvania	Pr	Y
South Dakota	S/Pr	Y
Tennessee	S	Y
Utah	S	N
Texas	S	Y
West Virginia	S	Y
Wyoming	S	Y

Pr = Produced

S = Sold

Y = Yes

N = No

NA = Not Applicable

NR = No Response

Source: Compiled by the Office of the Legislative Auditor.

AGENCY REPLIES



June 16, 1978

Mr. Morris L. Brusett  
Legislative Auditor  
Office of the Legislative Auditor  
State Capitol  
Helena, Montana 59601

RECEIVED

6/16/78  
MONTANA LEGISLATIVE AUDITOR

Dear Morris:

In accordance with your request for written reply to the recommendations contained in the final draft of your report on Oil and Gas Tax and Royalty Collections and other aspects of Oil and Gas Regulations in Montana, the following comments are submitted for presentation to the Legislative Audit Committee:

RECOMMENDATION (page 14)

1. Legislation be enacted to enable collection of the oil and gas severance tax, the privilege and license tax, and Resource Indemnity Trust Tax by the Department of Revenue on a quarterly basis on a consolidated return.
2. Legislation be enacted to address the confidentiality of the respective tax information.
3. Legislation be enacted to amend Sections 81-1704, 84-2202(1), 84-7006, and 60-145(1), R.C.M. 1947, to require payment of taxes or royalties based on the value of the oil and gas when sold rather than when produced.

RESPONSE

The Department agrees with the three recommendations.

RECOMMENDATION (page 32)

1. Revise the production report form to indicate the volume of flared or vented gas and provide for periodic testing of its accuracy by field personnel.
2. Require operators to submit economic justification depicting that recovery of associated gas is/is not feasible.

3. Authorize flaring where recovery is not feasible.
4. Suspend or curtail the operation of wells which flare without authorization.

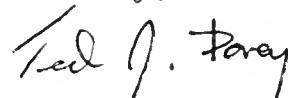
RESPONSE

The Department agrees with the four recommendations. Since the narrative writeup is highly technical, any comments in this area will be addressed by the Board of Oil and Gas Conservation.

Recommendations contained on pages 16 and 41 deal with the Department of State Lands and Department of Revenue. No comments are offered.

I thank you and your staff for the courteous consideration given the Department of Natural Resources and Conservation staff in the preparation of this audit.

Sincerely,



Ted J. Doney  
Director

RI/v

Copy to Mr. Judson Sweet  
Mr. Rich Munger  
Mr. Dick Isaacs  
Mr. Dick Campbell

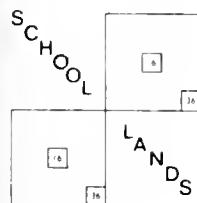


## DEPARTMENT OF STATE LANDS

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STATE BOARD OF  
LAND COMMISSIONERSTHOMAS L. JUDGE  
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SUPT. OF PUBLIC INSTRUCTIONFRANK MURRAY  
SECRETARY OF STATEMIKE GREELY  
ATTORNEY GENERALE V "SONNY" OMHOLT  
AUDITORLEO BERRY JR  
COMMISSIONER

MINING



RECLAMATION

June 19, 1978

RECEIVED

JUL 3 1978

MONTANA LEGISLATIVE AUDITOR

Mr. Morris L. Brusett, Legislative Auditor  
Office of the Legislative Auditor  
State Capitol  
Helena, Montana 59601

Dear Mr. Brusett:

In accordance with your request, the following is our response to the recommendations made to the Department of State Lands in the audit report on Oil and Gas Tax and Royalty Collections and other aspects of Oil and Gas Regulations in Montana.

RECOMMENDATION, Page 41.

1. Maintain current files on all unit agreements which concern oil and gas leases of state lands.
2. Revise the state lease form to provide for a compensatory unit agreement in addition to offset drilling.
3. Obtain the necessary expertise and assistance for monitoring oil and gas drilling activity within the state and for evaluating unit agreements to permit protection of royalties due from state leases on both primary and secondary recovery projects.
4. Enforce the provisions of the lease with respect to offset drilling or compensatory unit agreements.

RESPONSE:

1. We concur. The Department will secure copies of the three or four missing unit agreements which were entered into many years ago.
2. We concur with this recommendation and will take the necessary steps to make the changes on our lease form.
3. We concur. The Department will submit a request to the 1979 Legislature for funds to obtain the necessary expertise and assistance for monitoring oil and gas drilling activities.

Mr. Morris L. Brusett

-2-

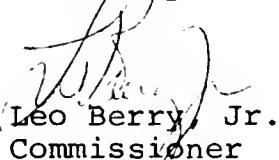
June 19, 1978

4. We concur. To enforce the provisions of the lease, the Department will have to obtain the necessary assistance as recommended in number three above.

The Department will take the necessary steps to recommend legislation to amend Section 81-1702, 2, R.C.M., 1947, to change the two-year drilling requirement to five years to be compatible with the penalty payments.

Thank you for the opportunity to comment.

Sincerely,



Leo Berry, Jr.

Commissioner



# STATE OF MONTANA

## DEPARTMENT OF REVENUE

MICHELL BUILDING  
HELENA, MONTANA 59601

June 28, 1978

RECEIVED

JUN 30 1978

MONTANA LEGISLATIVE AUDITOR

Morris L. Brusett, Legislative Auditor  
State Capitol  
Helena, Montana 59601

Dear Mr. Brusett:

We have examined the recommendations of this report as they apply to the Department of Revenue. The five points found on pages 14 and 16 obviously seek to increase administrative efficiency while simultaneously reducing the operator's paperwork burden.

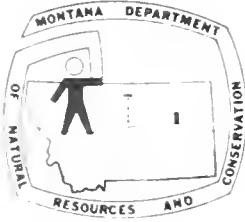
While we are in general agreement with your goals, we must once again emphasize the difficulty connected with making the Resource Indemnity Trust Tax a part of the consolidated return. Current law imposes this tax on all mineral producers on an annual basis. It is not simply a tax on oil and natural gas interests. If the law were amended in order to require only oil and gas interests to pay on a quarterly basis the state would be open to charges of discrimination. If, on the other hand, all mineral interests were required to file on a quarterly basis, the paperwork burden of mine operators would be increased. In the latter case there would also be some increase in administrative burden. It appears that whatever advantage might accrue to oil and gas interests by having the Resource Indemnity Trust Tax consolidated on a single form is probably offset by the additional burdens which such a move would create. We therefore suggest that the Resource Indemnity Trust Tax not be included in the consolidation.

With this single exception we endorse your recommendations and will work to speedily implement those which are independent of legislative action.

Very truly yours,

RAYMOND E. DORE  
Director

RED:pb



# MONTANA DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION

THOMAS L. JUDGE, GOVERNOR  
JOHN C. ORTH, DIRECTOR

## BOARD OF OIL AND GAS CONSERVATION

BOARD MEMBERS  
RICHARD A. CAMPBELL, CHAIRMAN  
CARL J. IVERSON, VICE-CHAIRMAN  
MILTON G. ANDERSON  
PAUL C. BURN  
JOHN R. MOORE

Mr. Morris L. Brusett  
Legislative Auditor  
State Capitol Building  
Helena, MT 59601

15 Poly Drive  
Billings, MT 59101  
July 6, 1978

RECEIVED

JUL 7 1978

MONTANA LEGISLATIVE AUDITOR

Re: "Report on Oil and Gas Tax and Royalty  
Collections and Other Aspects of Oil  
and Gas Regulation in Montana."

Dear Mr. Brusett:

With reference to your letter of June 8, 1978, please accept my apologies for not meeting your deadline of June 28 for a response to your recommendations contained in the captioned report. Our Board did not meet until June 29 and I felt it necessary that all Board members concur on the comments submitted to you. Following is a summary of our position on your recommendations:

Page 14: 1. The Board is in agreement with the recommendation to consolidate collection of the oil and gas severance tax, the privilege and license tax, and the resource indemnity trust tax by the Department of Revenue on a quarterly basis provided the Board of Oil and Gas Conservation is not charged a fee by the Department of Revenue and further provided that the privilege and license tax monies are deposited in the Board's earmarked fund.

2. The Board concurs with the recommendation that legislation be enacted to address the confidentiality of tax information.

3. The Board would support legislation that would require payment of taxes or royalties based on the value of the oil or gas when sold rather than when produced.

Page 16: 1. & 2. Although these two recommendations are not the concern of the Board of Oil & Gas, the Board offers the comment that procedures for reporting audit discrepancies to the Department of State Lands by the Department of Revenue and cross-checking production reports sent to these two Departments should be routine.

Page 32: 1. The Board's production report (Form 6) has already been revised so that disposition of the associated gas produced can be properly identified. The Board takes exception that its Field personnel periodically test wells to check the accuracy of reported gas volumes because the Board's

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field staff is very limited in numbers, they are not qualified to make such tests and the Board does not have the equipment to make such tests. However, the Board does have the authority (Rule 36-3.18(10) - S18240) to require an operator to make a gas-oil ratio test at such time as the Board may require. After the Board adopts a flaring regulation, the Board will require such gas-oil ratio tests when, in the Board's opinion, such tests are warranted. Further, the Board will require its field personnel to witness these tests when practicable.

2. The Board's staff has proposed a rule which, if adopted as written, will require that an operator submit an economic justification if he wishes to flare in excess of 100 MCFGD and obtain approval of the Board.

3. & 4. The proposed rule (See 2. above) provides for authorizing flaring in excess of 100 MCFGD if recovery is not feasible and curtailment of production if flaring cannot be justified.

Page 41: 1., 2., 3., & 4. Here again, the Board is of the opinion that the items of discussion and resulting recommendations in Chapter V of the report are not of direct concern to, nor the responsibility of the Board. However, being knowledgeable in the matters discussed in Chapter 5, the Board feels the recommendations are well founded and is in agreement with them.

Yours very truly,

  
R. A. Campbell  
Chairman, Oil & Gas Conservation Board

cc: Mr. C. J. Iverson, Vice-Chairman  
Mr. M. G. Anderson, Board Member  
Mr. P. C. Bunn, Board Member  
Mr. J. P. Moore, Board Member  
Mr. D. E. Chisholm, Executive Secretary  
Mr. Ted Doney, Director, Department of Natural Resources





